Use Attainability Analysis

for

WBID 0865 Flat Creek

Submitted by Tetra Tech, Inc

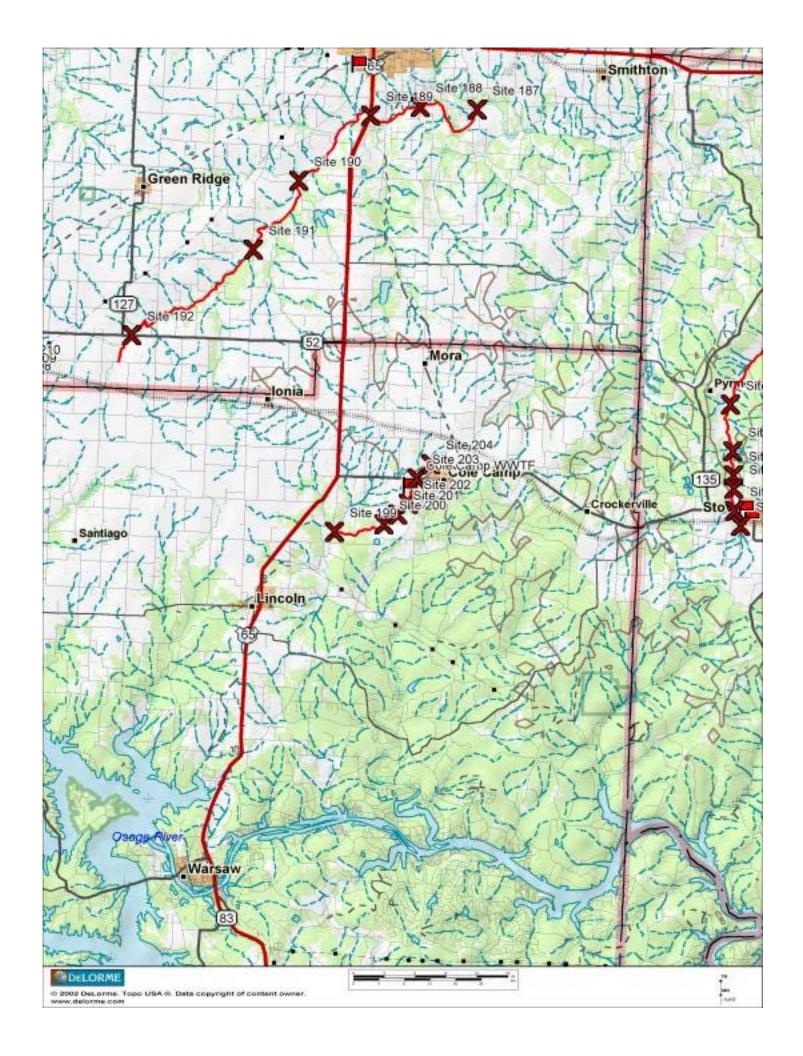
To Missouri Department of Natural Resources Water Protection Program

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Data Sheet A - Water Body Identification

2005 MAY 23 PM 3: 01

The Paris of the P	WATER PROTECTION PROGRAM
Water Body Name: (from USGS 7.5' quad) FLAT CREEK (187-192)	TOUR TROUMANT
(Holli 03037.3 quad) (TAT Cheek (187-1921)	-
8-digit HUC: 10300103	
Missouri WBID #: 0865	
County: PETTIS COUNTY	
Upstream Legal Description:	
Downstream Legal Description:	
Upstream Coordinates: (UGS 84, ddd.ddddd) N38.53901 W093.41805	stream most segment
Downstream Coordinates: (UGS 84, ddd.ddddd) N38.66263 W093.18038	DS most
Discharger Facility Name(s): CAMBRIDGE VILLAGE	
Discharger Permit Number(s):	
Number of Sites Evaluated: 6	
Name of Surveyor and Telephone Number: CHAD BARBOUR, 410-356	<i>8</i>
Organization: TETRA TECH INC.	
Position: Associate Scientist	
I, the undersigned, hereby affirm to the best of my knowledge, that a datasheet is true and accurate.	ll information reported on this UAA
Signed: Date:	04/21/05



Date: 21 chro5

Site identifier:

Page 1 of 3

Field Audit Checklist

Field work for Use Attainability Analysis for Contact Recreational Beneficial Use in Missouri

Overview

This checklist documents observations by an auditor (not from the State of Missouri) for field work performed according to "Recreational Use Attainability Analysis Protocol", Missouri Department of Natural Resources, Water Protection Program, November 3, 2004, and, "Field Data for Use Attainability Analysis (UAA)s for Contact Recreation Beneficial Use in Missouri", Tetra Tech, March 8, 2005. The purpose of the audit is to document the extent to which the field team follow the procedures in the protocol and the QAPP. The auditor does not perform simultaneous activities specified in the protocol and the QAPP for the purpose of comparing results obtained by the auditor and the field team. The field work is conducted here under Contract No. EP-C-04-030, Work Assignment No. B-15.

Procedure

The auditor arranges with the field workers to meet and accompany the field team for one or more site visits. When the auditor first meets the field team on the day of the field audit, the auditor provides the field team with a copy of this checklist. The auditor accompanies the field team to one or more site visits scheduled for the day. At each site, the auditor observes the work of the field team, and marks this checklist as events are observed. A new checklist is completed for each different site visited and audited. At the end of each site visit, both the field team and the auditor sign and date this checklist, attesting that this audit was performed as represented by this checklist and the markings thereon. After the day's work is complete, the auditor provides xerox copies of the completed checklists to a designated representative of the field team, and sends the original completed checklists to the State of Missouri.

Checklist

Date:

Time of arrival at site: 2:34

Identifier of site:

- 1. (Protocol pg. 16) Does the field team have a 7.5 minute USGS topographic quadrangle map for the location of this site?
- 2. (Protocol pg. 16) Does the field team measure and record location of the site using a GPS unit?
- 3. (Protocol pg. 16) Are the GPS location data recorded in UTM, NAD 83? down white result
- 4. (Protocol pg. 16) Are the start and end points (upstream and downstream coordinates) recorded on Data Sheet A?
- 5. (Protocol pg. 16) Are the narrative site assessments recorded on the forms provided in the protocol?
- 6. (Protocol pg. 16) Is information for this site recorded on a new form? Up.
- 7. (protocol pg. 16) Is a photographic record made of this site? $\sqrt[4]{2}$
- 8. (Protocol pg. 16) Do the photographs include an upstream view and a downstream view?
- 9. (Protocol pg. 16) If the team discovers evidence of observed or potential use, is a photograph taken documenting the evidence?
- 10. (Protocol pg. 16) Are the photographs catalogued in the field notes in a manner that indicates site location? You date? what is being shown? What is being shown?
- 11. (Protocol pg. 16) If people are present, does the field team interview the people? NA
- 12. (Protocol pg 16) If an interview occurs, does the field team obtain and record in the field notes

history of the water body?

legal name of person interviewed?

address of person interviewed?

- 13. (Protocol) At the end of the site observation, is Data Sheet A (one sheet) completed and signed? We
- 14. (Protocol) At the end of the site observation, is Data Sheet B (two sheets) completed and signed? Who
- 15. (QAPP pg 13) Does the field team have a list of equipment and expendable supplies?

Date: 21 anos Site identifier:

Page 3 of 3

- 16. (QAPP pg 13) Does the field team have backup equipment?
- 17. (QAPP pg 13) Have any battery-powered equipment been fully charged?
- 18. (QAPP pg 14) If the field team notices any deviations from the planned survey, does the field team record the deviations on the field forms? We
- 19. (QAPP pg 14) Are all entries made in ink with no erasures?
- 20. (QAPP pg 14) Are any incorrect entries crossed out with a single strike mark, initialed and you dated?
- 21. (QAPP pg 14) Are all field data sheets filled out completely? V/2
- 22. (QAPP pg 14-15) Are the completed field sheets signed? W92
- 23. (QAPP pg 15) Is this a replicate visit (for precision of field measurements)? W
- 24. (QAPP pg 15) If evidence of recreation use is obvious, do the Field Team Leader and the Field QC Officer agree?
- 25. (QAPP pg 18) Does the field team have documentation or other evidence that the measurement equipment is in working order?
- 26. (QAPP pg 19) Does the field team have documentation or other evidence that the GPS unit has been checked for accuracy?

Signatures

We, the undersigned, hereby affirm, to the best of our knowledge, that this audit occurred and that the marking on this checklist accurately represent the audit results.

Auditor: Don Phillin 21 am 05
Field Team member 1: Chack how 84 12105
Field Team member 2: Elizabeth Lee Yaubrough 4-21-05

Field Team member 3:

Field Team member 4:

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Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

2005 MAY 23 PM 3: 01

(A separate data sheet must be completed for each site) ATER PROTECTION PROGRAM

Missouri WBID #: 18	7		Site Location D	escription:			
Site GPS Coordinates:		ND2 10/	R+ M ove				
Date & Time: 4-21-2	005 a:34 Pw	7 1	Facility Name:	Cambridge Villag			
	- Y		Permit Number:	Carnonago VIVIII			
Current Weather Conditi		ady	78 Weather Condit	ions for Past 7 days:			
	Photo Ids: Upstream: 1766 A 042 Downstream: 1765 A 041 Other: Footpath 1767 A 043						
Uses Observed*:	cen		COD	ας			
☐ Swimming	☐ Skin diving		SCUBA diving	☐ Tubing	☐ Water skiing		
☐ Wind surfing	☐ Kayaking		Boating	☐ Wading	☐ Rafting		
☐ Hunting	☐ Trapping		Fishing	None of the above	☐ Other:		
Describe: (include numb U.SVQ\ estima than 3m, It				The stream wo due to depth.			
U.SVQ1 ESTIMATE THAN 3 M. IT	te due to was unsafe	wid to e	th of depth.	The stream wo due to depth.	ûs deeper		
Usual estima than 3m. It	te due to was unsafe	wid to e	th of depth.	The stream wo due to depth.	ûs deeper		
U.SVQ1 ESTIMATE THAN 3 M. It	te clue to was unsafe	promote o	th & depth. nter Stream rimpede recreational t	The stream wo due to depth.	nce or unusual		
U.SUQI ESTIMATE THAN 3 M. IT	te clue to was unsafe Is*: (Mark all that p	promote o	the depth. nter Stream rimpede recreational a Conservation lands onal forests	The stream wo due to depth. Urban areas	nce or unusual Campgrounds		
Surrounding Condition tems of interest.) City/county parks Boating accesses	Is*: (Mark all that p	promote o	the depth. nter Stream rimpede recreational a Conservation lands onal forests	The stream wo due to depth. Urban areas Nature trails	nce or unusual Campgrounds		
Furrounding Condition tems of interest.) City/county parks Boating accesses No trespass sign	Is*: (Mark all that p	promote o	the depth. nter Stream rimpede recreational a Conservation lands onal forests	The stream wo due to depth. Urban areas Nature trails	nce or unusual Campgrounds		
U.SUQ\ ESHimathan 3 m. In than 3 m. In than 3 m. In the solution tems of interest.) City/county parks Boating accesses No trespass sign Evidence of Human Us	Is*: (Mark all that pure Playgrounds State parks Fence	promote o MDC Nation	the depthenter Stream rimpede recreational to the conservation lands	The stream wo due to depth. Urban areas Nature trails	nce or unusual Campgrounds Stairs/walkway		

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

^{*}Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Page Two - 1	Data Sl	eet B for V	VBID # <u> 87</u>	_:*Visual width	Estimat	e due to
Stream Mor	phology	/: Physical Di		Widin	, a Deba	41
□ Riffle	Width (ft):	Length (ft):	Avg. Dept	h (ft):	Max. Depth (ft):
⊠ Run	Width (10: 47 m	Length (Kt):	Avg. Dept	h (ft): 🗡	Max. Depth (ft): 大 /3m
□ Pool	Width (EQ: 47 PM	Length (K):	Avg. Dept	h (ft): 🖟	Max. Depth (ft): *
☐ Flow	Present?		□ No	Estimated	(ft³/sec): ()nak	de *
Downstre	am Vie	w Physical	Dimensions:			
☐ Riffle	Width (Length (ft):	Avg. Dept	h (ft):	Max. Depth (ft):
☐ Run	Width	i): 47m	Length (ft): 2	Avg. Dept	h (ft):¥	Max. Depth (ft):
□ Pool	Width (N: 47 NE	u.21-05	Avg. Dept	h (ft):	Max. Depth (ft):
☐ Flow	Present'	,	□ No	Estimated	(ft³/sec): Unabl	e *
Substrate*:	sable (These v	Shore line	Unable due to	, width a dep	th to de t	the substrate a depth.
	Cobble		Gravel (% Sand 50		\
Water Char	acterist	ics*: (Mark	all that apply.)			
Odor:	·	☐ Sewage	☐ Musky	☐ Chemical	None None	Other:
Color:		□ Clear	☐ Green	☐ Gray	☐ Milky	Other:
Bottom De	posit:	☐ Sludge	☐ Solids	☐ Fine sediments	□ None	☐ Other:
Surface De	posit:	□ Oil	□ Scum	☐ Foam	☑ None	☐ Other:
Comments:	Please a	ttach additi	onal comments	(including inform	ation from inter	rviews) to this form.
*This information of the state	on is not understar recreation	to be used soluding of water n use analysis hereby affi	ely for removal of a conditions. Consect but may point to continue to the best of	recreational use desi quently, this informat anditions that need fur	gnation but rather ion is not intended ther analysis or th that all inforn	is to provide a more d to directly influence a nat effect another use. mation reported on this UAA
Organization:	: Tet	na Term	INC.	Positi	on: <u>A</u> 33003A7	re Sciunias,
			Cdi	4-21.	-05	
Septem	nber 29, 2	004	,			Page 19







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Data Sheet B - Site Characterization

2005 MAY 23 PM 3: 01

(A separate data sheet must be completed for each site) WATER PROTECTION PROGRAM

Missouri WBID #:	188		Site Location De	-		
Site GPS Coordinates: N38.66419 (1) 093.21955			TR+Ua+	-bridge		
Date & Time: 4-21-2005 3:17 PM			Facility Name: Cambridge Village			
Personnel: CB ELY			Permit Number:	y manage y management		
Current Weather Condit		ouder 85°	Weather Conditi	ons for Past 7 days:		
Photo Ids: Upstream: +	768-4 044 Dov	vnstream:		ROAD 1770A", Fishing	1771A 047	
Jses Observed*:	COD		CUV	046	cerp	
□ Swimming	☐ Skin diving	Пос	UBA diving	☐ Tubing		
☐ Wind surfing	☐ Kayaking	□ Bo			☐ Water skiing	
☐ Hunting				☐ Wading	Rafting	
	☐ Trapping	☐ Fis		None of the above	☐ Other:	
				documentation of evidence Greater than		
Uisual estinand unsafe turrounding Conditioners of interest.)	nate due to o enter st	width ream, d	of depth.		3m deep	
Uisual estinand unsafe t	nate due to o enter st	width ream, d	depth.	. Greater than	3m deep	
Uisual estinand unsafe turrounding Conditioners of interest.)	nate due to o enter st ns*: (Mark all that p	width ream, d	the depth we to depth	Greater than h ses. Attach photos of eviden	3m deep	
Uisual estinand unsafe to urrounding Conditionems of interest.)	nate due to o enter st ns*: (Mark all that p	width ream, d	depth ue to depth apede recreational unservation lands forests	Greater than h ses. Attach photos of eviden Urban areas	3m cleep nce or unusual Campgrounds	
Uiscal estinand unsafe to urrounding Conditioners of interest.) City/county parks Boating accesses No trespass sign	nate due to o enter st ns*: (Mark all that p Playgrounds State parks Fence	width ream, d promote or im MDC co	depth ue to depth apede recreational unservation lands forests	Greater than h ses. Attach photos of evider Urban areas Nature trails	3m cleep nce or unusual Campgrounds	
Uiscal estinand unsafe to	nate due to o enter st ns*: (Mark all that p Playgrounds State parks Fence	width ream, d	depth ue to depth apede recreational unservation lands forests	Ses. Attach photos of evident Urban areas Other:	3 m cleep nce or unusual □ Campgrounds □ Stairs/walkway	
Uisual estinand unsafe to und unsafe to unsafe	nate due to o enter st ns*: (Mark all that p Playgrounds State parks Fence	width ream, d promote or im MDC co National	the depth we to depth up to depth de	Greater than h ses. Attach photos of evider Urban areas Nature trails	nce or unusual Campgrounds	

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

^{*}Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Page Two – Data S		BID # 188	:* Visua	l estimati	e due to depth of who
tream Morpholog Upstream View		nensions:			•
□ Riffle Width	(ft):	Length (ft):	Avg. Dept	h (ft):	Max. Depth (ft):
□ Run Width	(N):34m	Length (K): 2	Avg. Dept	h (ft): due to turk	Max. Depth (ft): 7 3m
□ Pool Width		Length (ft):	Avg. Dept		Max. Depth (ft):
☐ Flow Present	it? \(\sum \) Yes	□ No	Estimated	(ft ³ /sec):	
Downstream Vi	ew Physical l	Dimensions:			
☐ Riffle Width	(ft):	Length (ft):	Avg. Dept	h (ft):	Max. Depth (ft):
□ Run Width	10: 34 m	Length (R): J	Om Avg. Dept	h (ft): ***	Max. Depth (ft): 73m
□ Pool Width		Length (ft):	Avg. Dept	h (ft):	Max. Depth (ft):
□ Flow Present	t? 🛚 Yes	□ No	Estimated	(ft ³ /sec):	
		ld up to 100%.) U	isual Assessi	nent	
5 % Cobble		Gravel 💍	% Sand 4(5 % Mud/Clay 0 % Bedrock
ater Characteris	stics*: (Mark a	ll that apply.)			· · · · · · · · · · · · · · · · · · ·
Odor:	☐ Sewage	☐ Musky	☐ Chemical	√Q None	☐ Other:
Color:	□ Clear	☐ Green	☐ Gray	Milky	1 Other: Brown
Bottom Deposit:	□ Sludge	□ Solids	☐ Fine sediments	□ None	Other: determine due to de
Surface Deposit:	∭ Oil	□ Scum	□ Foam	□ None	☐ Other:
his information is no mprehensive understa	t to be used sole	ly for removal of a conditions. Consecutions.	recreational use designation	gnation but rather	rviews) to this form. is to provide a more d to directly influence a nat effect another use.
stasheet is true and $\bigcap \bigcap \bigcap$	hereby affir nd accurate.	m to the best o			mation reported on this UAA
gned:	100			04/21/05	
rganization:	THA TUCH.	Ivc.	Positi	on: Associa	ATE SCIENTIST
		E24	J 4-21-05		
September 29,	2004	·			Page 19









Page Two – Data Sheet B for WBID # 199: **Stream Morphology: Upstream View Physical Dimensions:** Length (ft): Width (ft): ☐ Riffle Avg. Depth (ft): Max. Depth (ft): ☐ Run Width (ft): Length (ft): Avg. Depth (ft): Max. Depth (ft): Avg. Depth (ft): unable to determine Max. Depth (11): Width (t): Length (Kt): D Pool >3m ☐ Flow Estimated (ft³/sec): Present? ☐ Yes No 🗹 Downstream View Physical Dimensions: Width (ft): ☐ Riffle Length (ft): Avg. Depth (ft): Max. Depth (ft): Width (ft): □ Run Length (ft): Avg. Depth (ft): Max. Depth (ft): Width (K): ☑ Pool 30 m Length (ft): Avg. Depth (ft): * Max. Depth (N): >3m **D**.Flow Present? Estimated (ft³/sec): ☐ Yes No 🖾 Substrate*: (These values should add up to 100%.) Unable to assess due to turbidity % Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site) NONE Water Characteristics*: (Mark all that apply.) Odor: ☐ Sewage ☐ Musky ☐ Chemical None None ☐ Other: Color: ☐ Clear ☐ Green ☐ Grav 1 Other: Brown Milky **Bottom Deposit:** ☐ Sludge ☐ Fine sediments □ Solids ☐ None ☐ Other: Surface Deposit: ☐ Oil Scum ☐ Foam ☐ None ☐ Other: Comments: Please attach additional comments (including information from interviews) to this form. *This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use. I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate. **Date:** 64/21/85

E24 4-21-05

Organization: TETAR TELH INC. Position: ASSICTATO SCIENTIST

September 29, 2004

Data Sheet B - Site Characterization (A separate data sheet must be completed for each site)

2005 MAY 23 PM 3: 01

WATER PROTECTION PROGRAM Site Location Description: Missouri WBID #: 189 Site GPS Coordinates: N 36.66011 W093, 25353 765 @ Bridge ACC 18.5FL Date & Time: 4-21-05 Facility Name: 340 PM Cambridge Personnel: Permit Number: Current Weather Conditions: 83°F, OVERCAST Weather Conditions for Past 7 days: Photo Ids: Upstream: Downstream: Other: حوى لان **Uses Observed*:** ☐ Swimming ☐ Skin diving ☐ SCUBA diving ☐ Tubing ☐ Water skiing ☐ Wind surfing ☐ Kayaking □ Boating ☐ Wading ☐ Rafting ☐ Hunting None of the above ☐ Trapping ☐ Fishing ☐ Other: Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.) * Visual Assessment due to width & depth Greater than 3m deep and unsafe to enter stream due to depth, Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.) ☐ City/county parks ☐ Playgrounds ☐ MDC conservation lands ☐ Urban areas ☐ Campgrounds ☐ Boating accesses ☐ National forests ☐ State parks ☐ Nature trails ☐ Stairs/walkway ☐ No trespass sign ☐ Fence Steep slopes Other: **Evidence of Human Use*:** Roads ☐ Dock/platform ☐ Foot paths/prints ☐ Livestock Watering □ RV / ATV Tracks ☐ Rope swings ☐ Camping Sites ☐ Fire pit/ring ☐ NPDES Discharge ☐ Fishing Tackle ☐ Other:

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

^{*}Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.





Data Sheet B - Site Characterization

2005 MAY 23 PM 3: 01

(A separate data sheet must be completed for each site)
WATER PROTECTION PROGRAM

	Missouri WBID #: 190				Site Location Description:			
(16.8	Site GPS Coordinates: N 38.62375 W 093, 3029 3				Rt F (the road goes right through the stream)			
fb.	Date & Time: 4-21-05 - 4:12 PM				Facility Name:	Cambridge Village		
	Personnel: (B, EL'	7			Permit Number:	3		
	Current Weather Condition	ns: Mostly Cloud	ly 8	2°	Weather Condition	ons for Past 7 days:		
	Photo Ids: Upstream: [7	74A cso Dow	nstream		75A 051 Other	:		
		COP			ധാ			
Us	es Observed*:							
		☐ Skin diving		⊐ scu	BA diving	☐ Tubing	☐ Water skiing	
	☐ Wind surfing	☐ Kayaking		□ Boat	ing	☐ Wading	☐ Rafting	
	☐ Hunting	☐ Trapping		□ Fishi		☐ None of the above documentation of evidence	Other: Stones	
Su	Kevin Kohr Si a0451 Morgan Rd Green Ridge MO So	**************************************	hing		Kevin Rohr K river. He and there as well	oas seen people boo I his Children fish as some Kids from ses. Attach photos of evider	the neighborhood,	
1001	☐ City/county parks	☐ Playgrounds	□ МІ	DC con	servation lands	☐ Urban areas	☐ Campgrounds	
	☐ Boating accesses	☐ State parks	☐ Na	tional f	orests	☐ Nature trails	☐ Stairs/walkway	
	No trespass sign	☐ Fence	\(\sigma\).Ste	ep slop	es	Other:		
Ev	idence of Human Use	*					-	
	\(\sum_\) Roads	☐ Foot paths/prin	nts	□ Do	ck/platform	☐ Livestock Watering	RV / ATV Tracks	
	☐ Rope swings	☐ Camping Sites		☐ Fir	e pit/ring	☐ NPDES Discharge	Fishing Tackle	
	☐ Other:							
					· · · · · · · · · · · · · · · · · · ·			

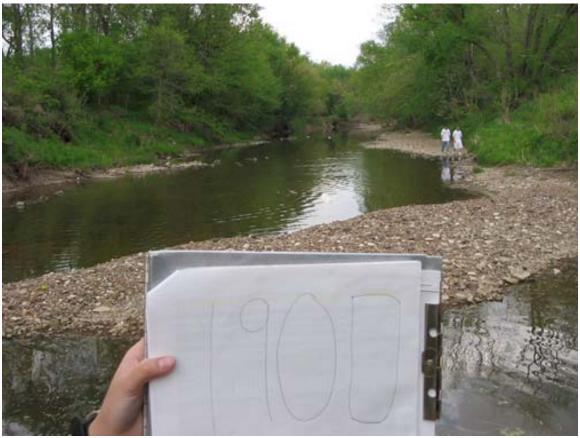
Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

^{*}Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Page Two – Data Sheet B for WBID # 190 :

Stream Morpholo Upstream Viev		ensions: נו אישים	ers:0.20,0.3	6 0 70.	0.90 , 0.70	
	h (ft):	Length (ft):	Avg. Depth		Max. Depth (ft):	
□ Run Widt	h (ft):	Length (ft):	Avg. Depth	(ft):	Max. Depth (ft):	······
"□ Pool Widt	h (181): 28 m	Length (ft):	O _M Avg. Depth	(N): 0.572 m	Max. Depth (R):	090100
☐ Flow Prese	ent? 🗆 Yes `	√Q No	Estimated (f			- VO VV
Downstream V	iew Physical I	Dimensions: 10	motors 0.22.	(120 (14	10,0.40,6.	28
☐ Riffle Widt	h (ft):	Length (ft):	Avg. Depth		Max. Depth (ft):	~0
□ Run Widt	h (ft):	Length (ft):	Avg. Depth	(ft):	Max. Depth (ft):	
Pool Widt	hilling 20 m	Length (K):	20m Avg. Depth	E 5,016	Max. Depth (ft):	0.40.
T Flow Prese	ent? 🗆 Yes	☑ No	Estimated (f			27.1971
Substrate*: (Thes		d up to 100%.) Gravel	% Sand 5	% Silt [()) % Mud/Clay	% Bedrock
Water Character	amount o	<u> </u>				
Odor:	☐ Sewage	☐ Musky	☐ Chemical	∇ None	☐ Other:	
Color:	\(\sum_Clear\)	☐ Green	☐ Gray	□ Milky	☐ Other:	
Bottom Deposit:	□ Sludge	☐ Solids	☐ Fine sediments	□ None	☐ Other:	
Surface Deposit:	□ Oil	□ Scum	□ Foam	□ None	Other:	
*This information is n comprehensive unders decision on the recrea	ot to be used solel standing of water of tion use analysis b	y for removal of a conditions. Consec ut may point to co	recreational use design quently, this information aditions that need furth	nation but rather i n is not intended er analysis or tha	to directly influence a	
datasheet is true a	and accurate.			04/21/05	mulon reported on	this UAA
Organization: To	ETHA TECH I	NZ,	Position		g SCIENTIST	
September 29	9, 2004	ELY	Y 4-21-6	1005	Doo	re 10





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Data Sheet B - Site Characterization

2005 MAY 23 PM 3: 01

(A separate data sheet must be completed for each site) WATER PROTECTION PROCEAM

	Missouri WBID #: [C	ι\			Site Location Description:			
27,5	Site GPS Coordinates: N	38,5851W93	33437	THE DOVE	RE Querpass			
££.	Date & Time: 4-21-0	5 450 PMX	Y	Facility Name:	Cambridge Villa	ook.		
	Personnel: CB EL			Permit Number:	VIVE			
	Current Weather Condition	ons: Cloudy &	33°	Weather Condition	ons for Past 7 days:			
	Photo Ids: Upstream: 7	76 A 052 Down	nstream:	1712 A 063 Other	:			
Us	es Observed*:	Cús		Can				
	☐ Swimming	☐ Skin diving		SCUBA diving	☐ Tubing	☐ Water skiing		
	☐ Wind surfing	☐ Kayaking		Boating	☐ Wading	☐ Rafting		
	☐ Hunting	☐ Trapping		Fishing	None of the above	☐ Other:		
	Declined Names & Interviewed a co	: address Kid: Juple passing	s use o	occasionally b	ut not oftenfor s	play, wading a fig		
	Declined Names & Interviewed a co	address Kide	s use (occasionally b	ut not oftenfor t	play, wading of fig		
					ut not oftenfor a			
	errounding Condition		romote or		.:			
	rrounding Condition ms of interest.)	ns*: (Mark all that pr	romote or	impede recreational us	ses. Attach photos of evider	nce or unusual		
	rrounding Condition ms of interest.) City/county parks	ns*: (Mark all that particular p	romote or	impede recreational us conservation lands nal forests	ses. Attach photos of evider Urban areas	nce or unusual		
iter	rrounding Condition ms of interest.) City/county parks Boating accesses	S*: (Mark all that pr ☐ Playgrounds ☐ State parks ☐ Fence	romote or MDC	impede recreational us conservation lands nal forests	ses. Attach photos of evider Urban areas Nature trails	nce or unusual		
iter	rrounding Condition ms of interest.) ☐ City/county parks ☐ Boating accesses ☐ No trespass sign	S*: (Mark all that pr ☐ Playgrounds ☐ State parks ☐ Fence	romote or ☐ MDC ☐ Nation ☐ Steep	impede recreational us conservation lands nal forests	ses. Attach photos of evider Urban areas Nature trails	nce or unusual		
iter	rrounding Condition ms of interest.) City/county parks Boating accesses No trespass sign	S*: (Mark all that pr ☐ Playgrounds ☐ State parks ☐ Fence e*:	momote or MDC Nation Steep	impede recreational us conservation lands nal forests slopes	Ses. Attach photos of evider Urban areas Nature trails Other:	□ Campgrounds		

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

^{*}Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morph Upstream V		imensions: in a	uters! 0.26 C	32 0	18 G 24 B 16	
	idth (ft):	Length (ft):	Avg. Depth		Max. Depth (ft):	
`⊠ Run W	idth (tt): 14 m	Length (K):	20m Avg. Depth	(E): 0,24	Max. Depth (R): 0,3	2 11
□ Pool W	idth (ft):	Length (ft):	Avg. Depth		Max. Depth (ft):	
☑ Flow Pr	esent? Yes	□ No	3 MEstimated (f	13/sec): 215	= 0.14 m/s	
Downstroom	View DLi.	Di	235		Cis ,	
	View Physica (idth (ft):	Length (ft):	V 17:	52,0.54		
			Avg. Depth	· · · · · · · · · · · · · · · · · · ·	Max. Depth (ft):	
	idth (ft):	Length (ft):	Avg. Depth		Max. Depth (ft):	· · · · · · · · · · · · · · · · · · ·
	ridth (ft): 13 m	Length (ft):	50,20 Avg. Depth		Max. Depth (R): 0.56	m
□ Flow Pr	resent?	□ No	Estimated (f	t ³ /sec):		
ubstrate*: (T	hese values should	add up to 100%)				
		% Gravel ()	% Sand 7	% Silt 8	% Mud/Clay () % F	Bedrock
	teristics*: (Marl	all that apply.)				
Odor:	☐ Sewage	☐ Musky	☐ Chemical	None None	☐ Other:	
Color:	\(\bar\) Clear	☐ Green	☐ Gray	☐ Milky	QOther: Brown	
Bottom Depos	it: 🗆 Sludge	☐ Solids	☐ Fine sediments	□ None	☐ Other:	
Surface Depos	sit: 🗖 Oil	∑ Scum	□ Foam	□ None	☐ Other:	
This information i	is not to be used so	lely for removal of a	recreational use design	nation but rather	rviews) to this form. is to provide a more d to directly influence a	
ecision on the rec	reation use analysi	s but may point to co	onditions that need furth	n is not intended er analysis or th	a to directly influence a lat effect another use.	
the undersig	ned, hereby af	irm to the best o	of my knowledge, t	hat all infori	nation reported on this U	TA A
atasheet is tru	ie and accurat	e.	,		roportou on uns (J11/1
igned:	METU	<u> </u>	Date:	04-2105	-	
rganization:	TOTALA TOCH		Position			
			14-4-21-			

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Page Two - Data Sheet B for WBID # 91 :

September 29, 2004





Data Sheet B - Site Characterization

2005 MAY 23 PH 3: 0!

(A separate data sheet must be completed for each witegr PROTECTION PROGRAM

Mi	issouri WBID #: [QC)		Site Location Description:		
20,4 Site	te GPS Coordinates: N		193 41805	R+52 @ overpass		
	ate & Time: 4-21-20		7 (100 <u>)</u>	Facility Name: (Cambridge Villa	se
Per	rsonnel: CB E	LY	·	Permit Number:	9-11-11-11	0
Cu	rrent Weather Conditio	ns: Cloudy	15°	Weather Condition	ons for Past 7 days:	
Pho	oto Ids: Upstream:	79 A 055 Dow	nstream: 77	78 A 054 Other:		
Uses (Observed*:	Cé°		C(9)		
	Swimming	☐ Skin diving	□ sct	JBA diving	☐ Tubing	☐ Water skiing
	Wind surfing	☐ Kayaking	☐ Boa	ting	☐ Wading	☐ Rafting
	Hunting	☐ Trapping	☐ Fish	ing	None of the above	☐ Other:
	ounding Conditions	S*: (Mark all that p	romote or imp	pede recreational us	es. Attach photos of evider	nce or unusual
	City/county parks	☐ Playgrounds	☐ MDC cor	nservation lands	☐ Urban areas	
	Boating accesses	☐ State parks	☐ National			☐ Campgrounds
				forests	☐ Nature trails	☐ Campgrounds ☐ Stairs/walkway
	No trespass sign	□ Fence	Steep slop		☐ Nature trails ☐ Other:	
<u> </u>	No trespass sign	\(\sum_{\text{Fence}}\)	~			
Evide		\(\sum_{\text{Fence}}\)	Steep slop			
Evide	ence of Human Use	N Fence	Steep slop	pes	☐ Other:	☐ Stairs/walkway

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

September 29, 2004

^{*}Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Page Two - Data Sheet B for WBID #____:

Stream Morpho Upstream Vie		nensions:in m	ters: 0.62, 0	76.0.76	0.62.0.72	
	lth (ft):	Length (ft):	Avg. Depth		Max. Depth (ft):	
□ Run Wie	lth (ft):	Length (ft):	Avg. Depth	(ft):	Max. Depth (ft):	
Pool Wie	lth (%): 7.8 m	Length (Kt): 2	Om Avg. Depth	(No: 0, 69	6 m Max. Depth (fi): 0.76	244
Flow Pre	sent?	No No	Estimated (1		- 0.70	W
Downstream	View Physical :	Dimensions: `	n meters: 1.45	m 135	, 1.12, 0.76, 0.24	<u> </u>
	lth (ft):	Length (ft):	Avg. Depth		Max. Depth (ft):	<u> </u>
□ Run Wie	lth (ft):	Length (ft):	Avg. Depth	(ft):	Max. Depth (ft):	
∑ Pool Wid	lth (ft): 13.2 m	Length (ft): ∂	Avg. Depth	(Ti): ().98	34 m Max. Depth (ft): 1.45 m	
☐ Flow Pre	sent? 🗆 Yes	□ No	Estimated (1		2.11	<u> </u>
Substrate*: (The	se values should a	dd up to 100%.) Gravel	% Sand 7	% Silt	8 % Mud/Clay 8 B	edrock
Algae Water Characte	ristics*: (Mark a	ll that apply.)				
Odor:	☐ Sewage	☐ Musky	☐ Chemical	□ None	☐ Other:	
Color:	☐ Clear	☐ Green	☐ Gray	Milky	Other: Brown	
Bottom Deposit	☐ Sludge	□ Solids	☐ Fine sediments	□ None	☐ Other:	
Surface Deposit	: 🗆 Oil	□ Scum	□ Foam	None None	☐ Other:	,
This information is omprehensive unde	not to be used sole	ly for removal of a conditions. Conse	a recreational use design	nation but rather	d to directly influence a	
iatasheet is true	ed, hereby affin and accurate.	m to the best o	of my knowledge, t	hat all infor	mation reported on this U	AA
Signed:	16/01		Date:	04-21-05		
Organization:	TETRA TECH	IN.	Positio	n: AUSOCZO	ATE SCIENTIST	
September 2	29, 2004	Edy 4	1-21-2005		Page 10	

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